



# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
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Division Director  
Oil Conservation Division



April 23, 2010

Mr. Andy Chalker  
Operations Manager-Permian Basin  
EOR Operating Company  
200 N. Loraine, Suite 1440  
Midland, TX 79701

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## **OPERATOR REQUIRED TO CEASE AND DESIST INJECTION**

Re: EOR Operating Company, OGRID 25742  
Order R-11641  
Crossroads Siluro Devonian Unit #304, API 30-025-03610

Dear Mr. Chalker,

The Oil Conservation Division (OCD) conducted a record review of the Crossroads Siluro Devonian Unit #304 injection well operated by EOR Operating Company (EOR). The review found violations of the terms of the injection permit, and violations of OCD's injection rules. The OCD understands that the well is currently shut-in. EOR may not resume injection into the well until the violations are resolved. EOR currently has a compliance conference scheduled for April 27, 2010. Please be prepared to discuss the following issues at that meeting:

Test Failures. According to the records in the well file, the well failed a mechanical integrity test on 7-15-08, and failed a bradenhead test on 3-19-10. The C-115 reports filed by EOR indicate that EOR continued to inject after each failure. Hobbs District Office Supervisor Buddy Hill called EOR on 4-9-10 and instructed EOR to shut the well in. EOR must repair the well so that it passes the required tests.

Packer Depth. Order R-11641, which authorized injection into the well, required the packer to be set at approximately 11,985'. The records in the well file indicate that the packer is set at 11,310'. The most recent regulatory filing from EOR, a sundry notice dated April 12, 2010, proposes "set pkr within 100' of top perforation at approximately 11,350'+/-." EOR has set, and proposes to set, the packer at a depth that is not authorized by its injection permit. EOR must set the packer at the depth required by its



permit, or obtain an amendment to its permit allowing it to set the packer at a different depth.

Injection Interval. Order R-11641 authorized injection into the Crossroads Siluro-Devonian Pool, at the interval proposed in the application. The application proposed injection between 12,085' and 12,100'. EOR recently provided the OCD with a wellbore diagram for the Crossroads Siluro Devonian Unit #304 well showing perforations at the following depths:

- 11,400'-11,413'
- 11,442' to 11,450'
- 12,089' to 12,095'
- 12,085' to 12,100' (squeezed)

The April 12, 2010 sundry from EOR identifies the following perforations: "Perfs 12,089'-12,095'. CIBP @ 12,010'. Perfs 11,442'-11,450'. CIBP @ 11,490'. Perfs 11,400'-11,413'." As indicated above, the sundry proposes to set the packer at 11,350', stating that is "within 100' of top perforation." Open perforations outside of the 12,085' to 12,100' zone approved by the permit indicate injection without authority. OCD rules require the operator of an injection well to confine injected fluids into the approved interval, and allow the OCD to shut-in injection wells that fail to confine injected fluids to the authorized injection zone until the operator has identified and corrected the failure. 19.15.26.10 NMAC. EOR may only inject into the interval authorized by its permit. To inject into a different interval, it must obtain an amendment to its permit.

The OCD's rules for injection wells require the operator to inject pursuant to an approved permit. 19.15.26.8.A NMAC. An operator who conducts an activity pursuant to a permit must comply with every term and condition of that permit. 19.15.5.11 NMAC. It appears that EOR is in violation of the permit conditions authorizing the injection interval, and setting the packer depth. In addition, the operator of an injection well must maintain the well to assure continued mechanical integrity that will result in no significant leak in the tubular goods and packing materials used and no significant fluid movement through vertical channels adjacent to the well bore. 19.15.26.10.A NMAC. And the operator must maintain the well in such a manner as will confine the injected fluids to the interval approved. 19.15.26.10.B NMAC.

I look forward to discussing these issues with you on April 27, 2010.

Sincerely,



Daniel Sanchez,

Compliance and Enforcement Manager

Director of the OCD's Underground Injection Control Program

Ec: Larry "Buddy" Hill, Supervisor, District 1  
E.L. Gonzales, Deputy Supervisor, District 1  
William Jones, OCD Engineer  
Gail MacQuesten, OCD Attorney